PaperCut Payment Gateway Module CommWeb Quick Start Guide

This guide is designed to supplement the *Payment Gateway Module* documentation and provides a guide to installing, setting up, and testing the Payment Gateway Module for use with CommWeb's Virtual Payment Client. The main *Payment Gateway Module* documentation may be downloaded from:

http://www.papercut.com/anonftp/pub/pcng/ext/payment-gateway/PaymentGatewayModule.pdf

IMPORTANT: *You should have an active CommWeb account set up before installing the payment gateway module.*

Setup and testing time should take around 30 minutes for basic setup, plus time for customizing the order pages if required. No system level restart is required; however the PaperCut application server will be restarted during the install process. If other administrators are using the PaperCut administration interface at this time, it may be advisable to warn them of the pending restart.

This document is written assuming the reader has good server administration skills and is experienced with general PaperCut administration.

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1 Payment Process Workflow

Below is the sequence of events that occurs when a user adds credit to their PaperCut account using the CommWeb payment gateway:

1. User clicks on the Add Credit link and goes to the `Add Credit` page.
2. User chooses the amount they would like to add and clicks on `Add Value`.
3. The user is redirected to the CommWeb hosted payment page to enter their payment details.
4. After the user has filled out all the fields and has confirmed payment, they will then be redirected back to the PaperCut user interface.
5. PaperCut will verify the authenticity of the redirection from CommWeb (using a Secret Hash Key), and then display the original `Add Credit` page with a message at the top of the page indicating either success or failure for the transaction.

2 CommWeb Configuration

The payment gateway uses the Virtual Payment Client Service Hosted Option. This requires a number of configuration parameters, some provided by Commonwealth Bank of Australia (CBA) and a number accessed via the CommWeb Merchant Administration (MA) portal. These parameters include:

- **Merchant ID** (provided by CBA) – during testing this will start with the prefix *TEST*
- Merchant Admin ID (provided by CBA typically, “Administrator”)
- Merchant Admin Password (provided by CBA)
- **Access Code** (from MA portal described below)
- **Secret Hash Key** (from MA portal described below)

Some of these parameters are shared with the payment gateway using its configuration file.

To obtain the **Access Code** and **Secret Hash Key** from the Merchant Administration portal:

1. Log into the Merchant Administration site: https://migs.mastercard.com.au/ma/CBA using:
    a. Merchant ID
    b. Operator ID set to the Merchant Admin ID e.g. Administrator
    c. Password set to Merchant Admin Password
2. The Administrator user is only used for creating/deleting users and setting passwords. You need to create a new user with the privilege to `Modify the Merchant Configuration` in order to see the configuration.
3. Go to **Admin->Operators**.
4. Click the link, **Create a new Merchant Administration Operator**
5. Enter the user details such as username (referred to as `cwuser` henceforth) and password.
6. Grant the user the **Modify the merchant configuration** privilege.

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7. If you want to allow this operator to do refunds in the future, then you might also like to set the **Perform Refunds** privilege.

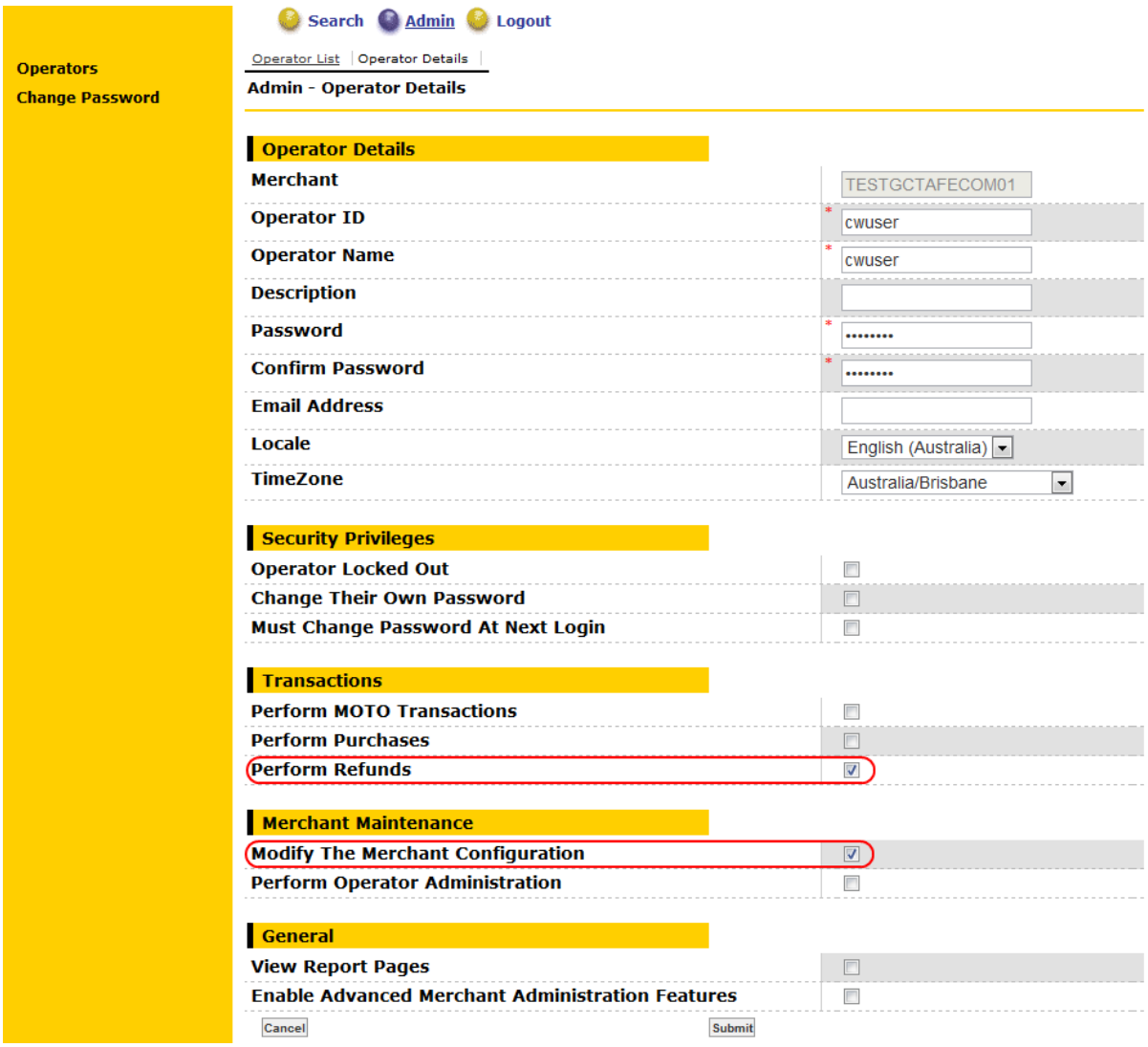

Figure 1 - Operator Details Page

8. Logout.
9. Log back in as the newly created user, `cwuser`..
10. Select **Admin->Configuration Details** in order to see the Virtual Payment Client configuration parameters of: `Access Code` and `Secure Hash Secret 1` (**Secret**

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Hash Key).

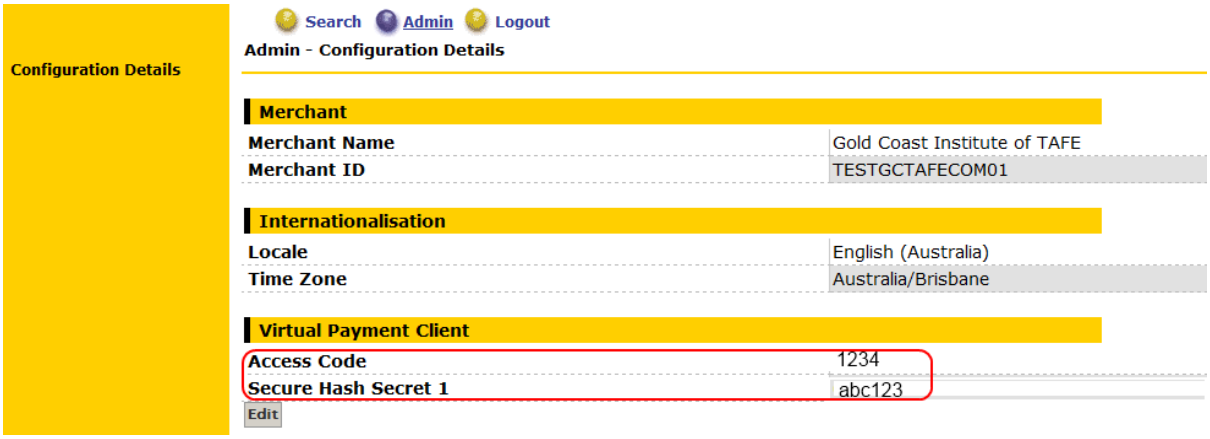

Figure 2 - Configuration Details Page

3 Installing the Payment Gateway Module

1. The Payment Gateway Module will function during the PaperCut NG 40 day trial period. After this, the module must be licensed. If you have been supplied with a new license take the time to install this now. The license install procedure is documented in the PaperCut user manual chapter 'Licensing and Support'.

2. Download the Payment Gateway Module from the PaperCut website at

   http://www.papercut.com/anonftp/pub/pcng/ext/payment-gateway/pcng-payment-gateway-module.exe

3. Install the module into the same directory as PaperCut. This is normally:

   ```
   C:\Program Files\PaperCut NG\
   ```

4. Open the file:

   ```
   [app-path]\server\lib-ext\ext-payment-gateway-commweb.properties
   ```

   in a text editor such as Notepad.

5. Locate the line `commweb.enabled=N` and change the `N` to `Y`. This will enable the CommWeb module.

6. Locate the line `commweb.access-code` and enter your CommWeb **Access Code**.

7. Locate the line `commweb.merchant-id` and enter your CommWeb **Merchant ID**.

8. Locate the line `commweb.secret-key` and enter your CommWeb **Secret Hash Key**.

9. Configure other options in this file as discussed in General Configuration Options in the *Payment Gateway Module* documentation, or by referring to the comments in the file itself. Options include limits on the amount to transfer, access groups, number of retries allowed before failing, and header and footer html.

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You may like to enable a group restriction to limit access to administrators until configuration is complete.

10. Save the file and exit the text editor.

11. Restart the *PaperCut Application Server* service via `Control Panel -> Administrative Tools -> Services` and wait 30 seconds.

12. Check the end of the log file at `[app-path]\server\logs\server.log` for any obvious error messages.

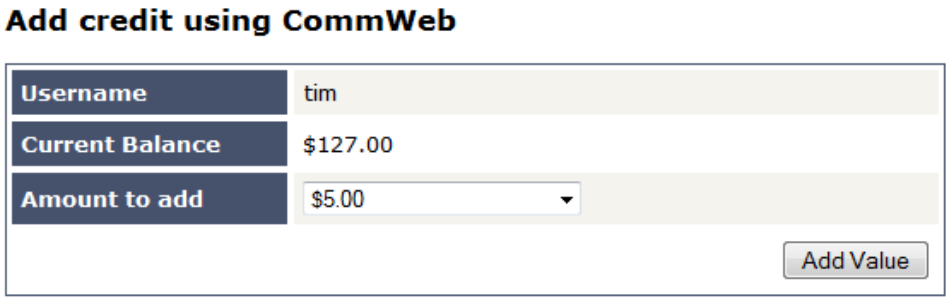
4 Testing

The Payment Gateway Module is now ready for testing. This test will involve performing a transaction with a test credit card number for the test merchant ID and testing end-to-end functionality.

1. Log into the PaperCut user web interface, i.e. `http://papercut:9191/user`

2. A new link called **Add Credit** should be present on the left. Click this link.

3. Select an amount to add and click **Add Value**.



4. You should now be redirected to Commonwealth Bank's payment page. Click on the **VISA** or **Mastercard** link.

5. Enter the **VISA** card details with a test card number of `4987654321098769` or test **Mastercard** number of `5123456789012346`, and expiry date month of `05` and year of `17`. (Please note that the test card numbers above are sourced from documentation via https://support.dialectpayments.com/commweb/documentation.php. Please obtain new card details from this location if you have problems with the above test card information. This will require authentication details provided by CommWeb).

6. After confirming the credit card information is correct and clicking on the **pay** button, you will see the Processing web page before it returns you to PaperCut.

7. You should now be back at the **Add Credit** page. You should see a green message indicating that the funds were added to your account, and **Current**

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Balance should show your new account balance. The **Transaction History** page should contain the payment transaction.

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5 Security

The payment gateway system uses two URLs, one for redirection to CommWeb's payment page and another URL to redirect one back to the PaperCut payment gateway page. In order to maintain security and prevent the user from forging the payment URLs, the URLs are appended with an MD5 Hash value calculated using the request parameters and a shared secret key. The shared secret key is akin to a password which is shared between CommWeb's system and the PaperCut payment gateway system. As part of verification, this hash is recalculated on the parameters with the secret key and compared to the hash value given in the URL.

6 Go-Live

If a group restriction was enabled in section 3 it can now be removed or altered to allow access to end-users.

In order to go live, you need to request a production cutover from the Commonwealth Bank CommWeb Support via email using the address: commweb@cba.com.au . This will also involve removing the *TEST* prefix from the **Merchant ID** in the payment gateway properties file.

Your system is now live and will accept and charge credit cards. We recommend testing the live system with a real credit card to ensure it is functioning correctly. You will be able to refund the transaction from the CommWeb Merchant Administration page afterwards (see section 7).

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7 Troubleshooting

Administrators may find information in the following log files useful when trying to troubleshoot setup/configuration problems or issues reported by end-users.

Payment Gateway Event Log:
`[app-path]\server\logs\payment-gateway\event.log`
This log contains gateway specific error messages and events.

Application Log:
`[app-path]\server\logs\server.log`
This log contains general application specific error messages and events.

Transaction Log:
`[app-path]\server\logs\payment-gateway\transaction.log`
This log contains a list of successful transactions in a tab-delimited form.

In particular, it may be possible that after the user has confirmed their payment on the CommWeb site, that due to some failure, they are not redirected back to the PaperCut payment gateway page and therefore, the amount has been deducted from the credit card but not been added to the PaperCut balance. To reconcile these differences one would compare the gateway transaction log (specified above) with CommWeb's Merchant Administration portal's Order Search results (below).

7.1 Searching and Refunding CommWeb Orders

To review the details of previous CommWeb orders, you can log in as either the Administrator or the previously setup operator, `cwuser`. In order to issue a refund you will need to log in as `cwuser` and you must previously have granted the **Perform Refunds** privilege (see section CommWeb Configuration) to this operator.

1. Log into the Merchant Administration site: https://migs.mastercard.com.au/ma/CBA using:
   - Merchant ID
   - Operator ID set to `cwuser`
   - Password set to `cwuser`'s password
2. Click on the **Search** link at the top of the page.
3. Click on the **Order Search** link at the left of the page.
4. You may then narrow down the search for the order/transaction that you were interested in. For example, by a date range. Then click on **Submit**.

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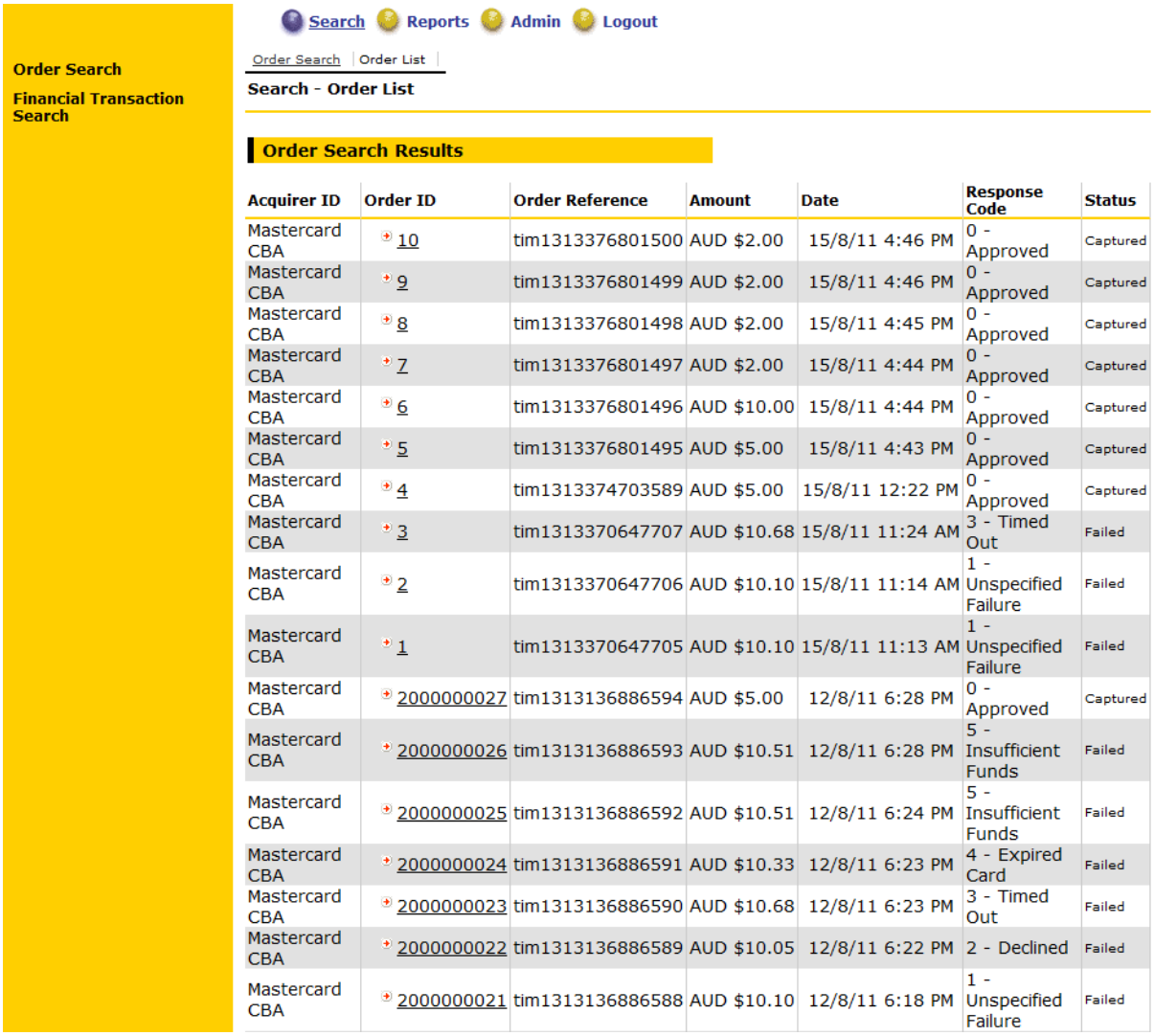
5. You will then see a list of matching orders under the heading of Search Results.



Search Reports Admin Logout

Order Search | Order List

Order Search

Financial Transaction Search

Search - Order List

Order Search Results

Acquirer ID	Order ID	Order Reference	Amount	Date	Response Code	Status
Mastercard CBA	10	tim1313376801500	AUD $2.00	15/8/11 4:46 PM	0 - Approved	Captured
Mastercard CBA	9	tim1313376801499	AUD $2.00	15/8/11 4:46 PM	0 - Approved	Captured
Mastercard CBA	8	tim1313376801498	AUD $2.00	15/8/11 4:45 PM	0 - Approved	Captured
Mastercard CBA	7	tim1313376801497	AUD $2.00	15/8/11 4:44 PM	0 - Approved	Captured
Mastercard CBA	6	tim1313376801496	AUD $10.00	15/8/11 4:44 PM	0 - Approved	Captured
Mastercard CBA	5	tim1313376801495	AUD $5.00	15/8/11 4:43 PM	0 - Approved	Captured
Mastercard CBA	4	tim1313374703589	AUD $5.00	15/8/11 12:22 PM	0 - Approved	Captured
Mastercard CBA	3	tim1313370647707	AUD $10.68	15/8/11 11:24 AM	3 - Timed Out	Failed
Mastercard CBA	2	tim1313370647706	AUD $10.10	15/8/11 11:14 AM	1 - Unspecified Failure	Failed
Mastercard CBA	1	tim1313370647705	AUD $10.10	15/8/11 11:13 AM	1 - Unspecified Failure	Failed
Mastercard CBA	2000000027	tim1313136886594	AUD $5.00	12/8/11 6:28 PM	0 - Approved	Captured
Mastercard CBA	2000000026	tim1313136886593	AUD $10.51	12/8/11 6:28 PM	5 - Insufficient Funds	Failed
Mastercard CBA	2000000025	tim1313136886592	AUD $10.51	12/8/11 6:24 PM	5 - Insufficient Funds	Failed
Mastercard CBA	2000000024	tim1313136886591	AUD $10.33	12/8/11 6:23 PM	4 - Expired Card	Failed
Mastercard CBA	2000000023	tim1313136886590	AUD $10.68	12/8/11 6:23 PM	3 - Timed Out	Failed
Mastercard CBA	2000000022	tim1313136886589	AUD $10.05	12/8/11 6:22 PM	2 - Declined	Failed
Mastercard CBA	2000000021	tim1313136886588	AUD $10.10	12/8/11 6:18 PM	1 - Unspecified Failure	Failed

Figure 3 - Order List

6. If you click on an order id, you will be taken to an **Order Details** page.
7. If you set the `Perform Refunds` privilege earlier, then you will be able to click on the **Refund** button.

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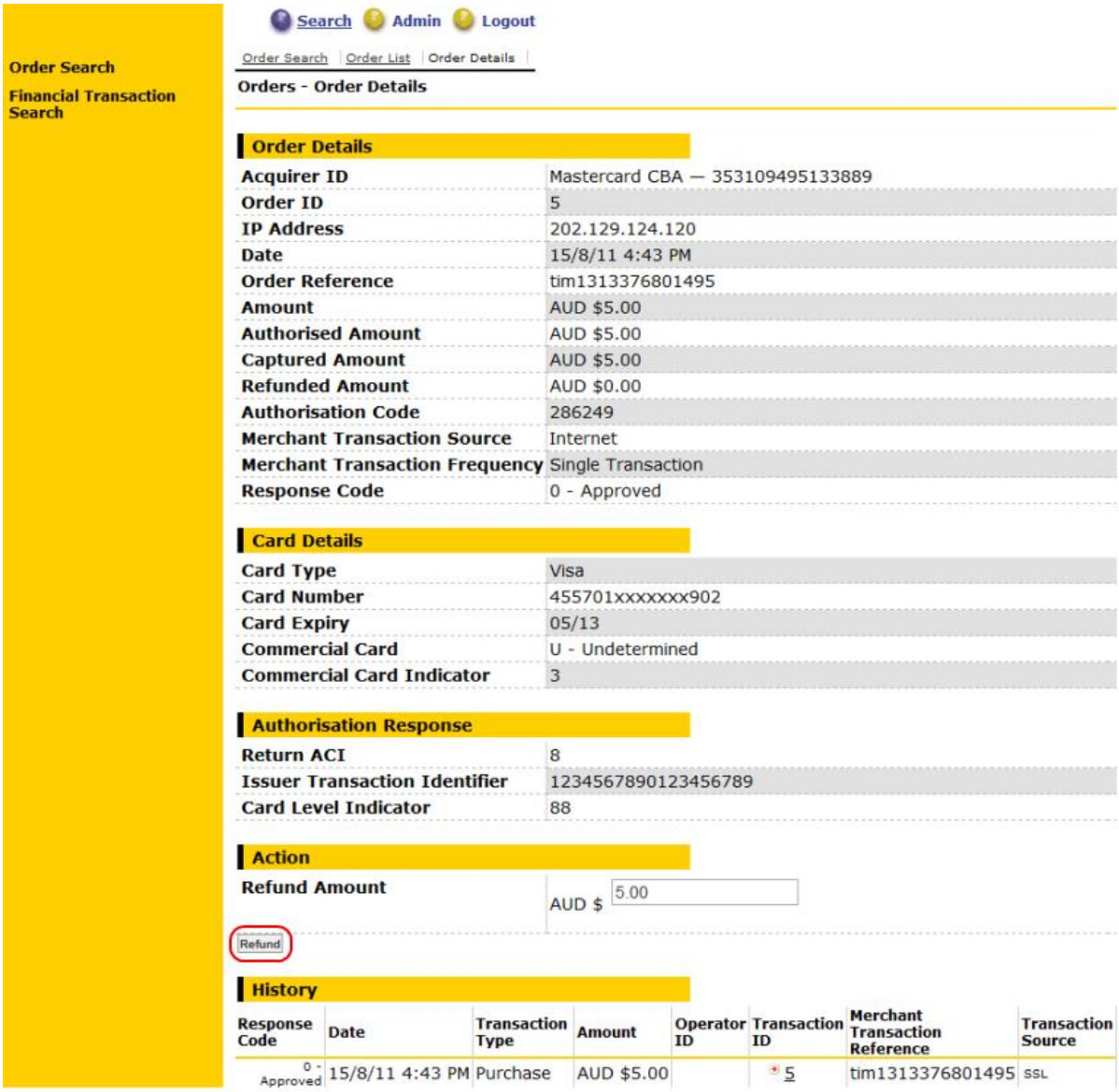

Figure 4 - Order Details and Refunds

The Order Reference number can be cross checked with entries in the PaperCut gateway event log (`[app-path]\server\logs\payment-gateway\event.log`). Examples include:

- “Created a new order for user tim, order id: tim1312276801500"
- "Order confirmed. Transaction id: tim1312276801500, order id: tim1312276801500, payment amount: 250, error message: …"

Please feel free to contact the PaperCut Software Development Team at support@papercut.com if you require further assistance.

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